

Leveraging marketer-generated appeals in online brand communities: An individual user-level analysis

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Abstract

Purpose — The proliferation of online brand communities has shifted control over brands from firms to consumers. Demonstrating how marketers can stimulate consumers to use these opportunities and engage with the brand in such communities, this research addresses the effectiveness of normative and utilitarian appeals commonly employed in practice for enhancing engagement intensity and brand equity in turn.

Design/methodology/approach — This paper presents two studies at an individual user level. The first study builds on matched data on marketing actions, user behavior, and user perceptions from a Facebook brand community. The second study uses an experiment with members of a firm-hosted online brand community. The authors employ seemingly unrelated regressions while controlling for self-selection.

Findings — Marketer-generated appeals have a positive effect on brand equity that is mediated by engagement intensity. However, the strength of these effects depends highly on community, user, and relationship characteristics.

Practical implications — Generally speaking, marketer-generated appeals are effective tools for marketers to build brand equity through enhanced user engagement. However, their effectiveness can be improved when managers use a targeted approach. To offer precise managerial guidance, this paper shows how entertainment value, content consumption asymmetry (e.g., whether a user prefers UGC over MGC), and membership duration increase or lower the impact of appeals in building the brand through engagement intensity.

Originality/value — The authors provide evidence that appeals designed to drive user engagement in online brand communities are effective tools for boosting brand equity.

Keywords — Marketer-generated appeals, Online brand communities, Consumer-based brand equity, User engagement, Social media marketing, Communal service delivery

Paper type — Research paper

Introduction

Online brand communities are now hosted by 93 percent of Fortune 500 firms, underscoring their importance as a powerful management tool for product and service brands (Barnes and Lescault, 2015). Online brand communities^[1] have largely shifted control over brands from firms to consumers. They enable engaged customers to provide communal services in lieu of the firm by voicing their brand-related experiences and opinions (Dholakia *et al.*, 2009; Mende and van Doorn, 2014). Thus, initiating a trend of “brand democratization”, online brand communities have significantly fueled the virtual co-creation of brands through user engagement (Asmussen *et al.*, 2013; Schau *et al.*, 2009) — understood as user-determined activities such as creating, liking, or sharing of online content (e.g., Stephen *et al.*, 2015; van Doorn *et al.*, 2010). While marketers initially feared such a loss of control, anecdotal evidence implies that they can actually strengthen brand equity by proactively sharing control over the brand (Hammedi *et al.*, 2015). Consequently, marketers are increasingly using marketer-generated appeals to call upon users to engage (de Vries *et al.*, 2012; Stephen *et al.*, 2015).

Despite these challenges, empirical studies of the effects of marketer-generated appeals in social media are scarce (Paulin *et al.*, 2014). While prior quantitative research provides fruitful knowledge about users’ motives for engagement (Hennig-Thurau *et al.*, 2004; Jahn and Kunz, 2012), it does not consider instruments that address these motives in order to drive user engagement and eventually brand equity. Existing studies on the effects of online content on user engagement explain what content characteristics drive user engagement (Berger and Milkman, 2012; de Vries *et al.*, 2012), but do not consider appeals or calls to action transmitted through marketer-generated content. In addition, to the best of the authors’ knowledge, studies on the effects of appeals on brand equity are nonexistent. However, the nature of online brand

communities pressures marketers to devise practical marketing approaches that speak to the various motivations for networked brand building (Kozinets *et al.*, 2010; Wirtz *et al.*, 2013). Hence, marketers urgently need empirically founded knowledge regarding appeals that are not only able to stimulate user engagement in online brand communities, but also serve to enhance brand equity (Keller and Lehmann, 2006; Schau *et al.*, 2009).

This research addresses the effectiveness of appeals for user engagement that marketers can employ as part of their social media marketing. Specifically, this paper addresses the following research questions. (1) Are marketer-generated appeals effective in enhancing user engagement in online brand communities? (2) Which context factors amplify or threaten the effectiveness of marketer-generated appeals for triggering user engagement in online brand communities? (3) Does user engagement in online brand communities enhance brand equity?

This paper differentiates between two types of marketer-generated appeals that have been shown to encourage desired consumer behavior across different contexts and that are frequently used in social media marketing practice: normative and utilitarian appeals (e.g., Paulin *et al.*, 2014; Schumann *et al.*, 2014; White and Simpson, 2013). Founded in the normative social influence concept (Berger and Ward, 2010; Burnkrant and Cousineau, 1975), normative appeals lean on interpersonal influences between users and encourage user engagement in online brand communities by highlighting what other community members do (e.g., “Share your brand experiences as your friends have done”). In contrast, building upon social exchange theory (Blau, 1964; White and Peloza, 2009), utilitarian appeals rely on marketer-user exchanges in the online brand community (Benoit *et al.*, 2016). Utilitarian appeals highlight benefits provided by the marketer — such as a cash prize or discounts offered by the firm — to solicit users to engage in online brand communities (e.g., “Share your brand experiences to win a \$50 coupon”). This research examines the effects of these appeals on user engagement and brand equity in turn and

considers the role of moderators that capture community, user, and relationship characteristics for this chain of effects.

Based on a field study and a large-scale experiment, this paper offers three contributions to online brand community research. First, this research is among the first to examine the effects of marketer-generated appeals at the focal user level. Prior research often took an aggregate-level perspective, which prevents the examination of outcomes that occur at the level of the individual user-brand relationship (de Vries *et al.*, 2012; Stephen *et al.*, 2015).

Second, this research responds to calls for a broadened perspective on the outcomes of social media marketing instruments beyond engagement (Hennig-Thurau *et al.*, 2010; Libai *et al.*, 2010). Specifically, this paper is the first to show that marketer-generated appeals also increase brand equity and that this form of value creation through appeals is mediated by enhanced engagement. Importantly, the mediation holds when controlling for the effect of engagement valence on brand equity. That is, the mere fact that users participate in an online brand community helps to build brand equity, regardless of the sentiment expressed in the engagement activity, making appeals an important tool for marketers to create value.

Third, this research also offers precise advice for brand managers on when either type of appeal has the greatest impact. Specifically, the findings show that community, user, and relationship characteristics determine how effective either normative or utilitarian appeals are for driving engagement intensity and brand equity.

The online brand community challenge

Online brand communities are defined as an “aggregation of individuals or business partners who interact based on a shared interest, where the interaction is supported or mediated by technology” (Porter and Donthu, 2008, p.115). Firms run online brand communities on dedicated, firm-hosted

websites (e.g., branded online discussion forums; Homburg *et al.*, 2015) or on sites embedded in social media channels (e.g., Facebook brand pages; Goh *et al.*, 2013). By offering opportunities to consume branded content and to engage in online activities related to the brand, online brand communities establish a major platform for influencing users' brand evaluations and set the stage for continuous user-firm co-creation of the brand (Wirtz *et al.*, 2013).

For brand managers, online brand communities change the game. The brand is now shaped by both marketers *and* consumers (McAlexander *et al.*, 2002; Singh and Sonnenburg, 2012). As users participate in intensive discussions of their brand experiences or share brand-related content with their peers, they develop strong brand-specific perceptions and intentions (Hennig-Thurau *et al.*, 2010). In turn, online brand communities change the traditional relationship between marketing activities and brand equity (Hammedi *et al.*, 2015). Traditionally, brand managers' activities communicate a clear picture of a brand and aim at enhancing users' brand perceptions. Today, however, much of a brand's formation can occur outside of the brand manager's control. Research has suggested that marketers can benefit from this game change if they actively cede responsibility to users to support a vital community, which is the basis for collaborative brand building (Schau *et al.*, 2009).

In this context, a major challenge is how marketers should approach consumers in online brand communities: marketers can take either a passive or an active approach. Passive approaches are often entertainment-oriented and build on evoking positive emotions (Berger and Milkman, 2012) or vivid elements (de Vries *et al.*, 2012). The active approach has been highlighted in recent research and suggests the use of solicitation-oriented content to drive users to actively engage in online brand communities (Lee *et al.*, 2015). As marketers observe diminishing returns for their activities in terms of achieved user engagement (Homburg *et al.*, 2015), the latter approach gains importance. Accordingly, the authors discuss in the next section

how marketers can employ appeals to drive brand equity by encouraging users to engage in brand communities.

A model for building brand equity through marketer-generated appeals

The model considers the effects of normative and utilitarian marketer-generated appeals on engagement intensity and brand equity in turn. Further, this research accounts for moderator conditions that may determine when either appeal is more or less promising for driving engagement intensity and brand equity. Figure 1 summarizes the conceptual model.

[Insert Figure 1 about here]

Main variables

Marketer-generated appeals can be broadly defined as calls to action that encourage consumer behavior by highlighting a particular reason for the desired behavior (White and Peloza, 2009; White and Simpson, 2013). Social media marketers use these appeals to solicit users to perform specified activities (e.g., content creation) within online brand communities (de Vries *et al.*, 2012; Lee *et al.*, 2015). Related studies on appeals in online communities point out two motivational antecedents particularly meaningful for encouraging user behavior: to be in accordance with the values of other users and to attain a favorable cost-benefit ratio for oneself based on exchanges with the brand (Garnefeld *et al.*, 2012). These motivational antecedents reflect two routes social media marketers can pursue to motivate users to engage in online brand communities. The normative social influence concept (Burnkrant and Cousineau, 1975) and social exchange theory (Blau, 1964) serve to explain the underlying motivational mechanisms.

The normative social influence concept focuses interpersonal influences between users. It helps in identifying antecedents of behavioral intentions and actual behavior in online and offline brand communities by taking into account the role of social norms between users in group

settings (Algesheimer *et al.*, 2005; Dholakia *et al.*, 2004). It implies that individuals adopt group behavior to associate with a reference group (Berger and Ward, 2010; Burnkrant and Cousineau, 1975) and that they can be motivated to engage in the group by emphasizing typical behaviors of other community members (Mathwick *et al.*, 2008). Literature in social psychology (e.g., Nolan *et al.*, 2008), organizational behavior (e.g., Knoke, 1988), and cause-related marketing (e.g., White and Simpson, 2013) stresses that normative appeals specifically speak to this motivation. Accordingly, *normative appeals* are defined as calls to action that encourage user behavior by stressing what other people do (White and Simpson, 2013). For instance, to encourage members to post their experiences with a product, a firm can send e-mails that explicitly point out experiences previously posted by other members in the online brand community. Similarly, Facebook allows seeding of specific brand page contents to inactive fans by indicating that a friend has previously engaged with that content (Lipsman *et al.*, 2012).

Second, social exchange theory serves to theoretically found utilitarian appeals by explaining social exchanges between marketers and users. Individuals invest in relational exchanges based on expected rewards and costs (Blau, 1964). Social exchange theory hence suggests that to get community members engaged in brand-related activities, marketers can try to shift the cost-reward ratio (Hennig-Thurau *et al.*, 2004). Accordingly, *utilitarian appeals* are defined as calls to action that encourage user behavior by highlighting benefits to oneself resulting from tangible rewards or cost reductions provided by the firm (White and Simpson, 2013). To activate a user to share a recent brand experience, a marketer might offer a tangible reward (monetary rewards, product samples, or status points) or a cost reduction (discounts, vouchers, or special bundles) in return for specific user behaviors (liking, sharing, or posting).

Engagement intensity can be defined as the degree to which a user participates in brand-focused community activities with respect to the associated level of immediacy, frequency, and

effort (Hollebeek *et al.*, 2014; van Doorn *et al.*, 2010). User engagement relates to user-determined activities within the online brand community such as the creation of content (posting a comment, a picture, or a video) or the reacting to online content (liking or sharing content created by marketers or other members; Stephen *et al.*, 2015; van Doorn *et al.*, 2010). This understanding of engagement adopts a behavioral perspective by focusing on typical user activities within online brand communities (Lipsman *et al.*, 2012).

Consumer-based brand equity is the incremental value a brand name adds to a product or service from a consumer perspective based upon consumer brand awareness, brand associations, perceived quality of the brand, and loyalty toward the brand (Arnett *et al.*, 2003; Pappu *et al.*, 2005; Yoo and Donthu, 2001). This conceptualization captures what the brand means to the consumer, the consumer's subjective evaluation of the brands, and the consumer's intention to re-buy the brand in the future (Aaker, 1991; Keller, 1993). Taking the consumer's point of view is most useful for explaining how marketing instruments can change what consumers assign to a brand name (Yoo *et al.*, 2000).

Moderating variables

Previous literature on online brand communities and social media suggests that community characteristics, user characteristics, and characteristics of the user-community relationship are most appropriate to capture contextual variances (Dholakia *et al.*, 2004; Hennig-Thurau *et al.*, 2010; Wirtz *et al.*, 2013). The selection of moderators in this research reflects this triad. First, the user-perceived *entertainment value* of a community represents an important community characteristic, and is defined as the pleasure a user derives from being part of an online brand community (Dholakia *et al.*, 2004). For example, some members may perceive an online brand community as more entertaining than others because they enjoy arousing media elements and exciting functionalities (de Vries *et al.*, 2012; Marchand and Hennig-Thurau, 2013). However,

marketers who provide an entertaining community to users establish an inherently enjoyable environment that may stimulate users to respond differently to external calls to action.

Second, users acquire brand-related information from user-generated content (UGC) and marketer-generated content (MGC) for brand evaluation purposes (Goh *et al.*, 2013).

Accordingly, this research captures a user's general preference of UGC over MGC through the variable *content consumption asymmetry*. The more weight a user puts on UGC in relation to MGC, the higher the score of the content consumption asymmetry variable. Considering this user characteristic helps community managers to decide upon how much they can intervene in terms of disseminating MGC. This information is crucial because appeals are embedded in MGC.

Third, this paper considers *membership duration*, which is defined as a user's length of affiliation with the community (Algesheimer *et al.*, 2005; Wirtz *et al.*, 2013), to be an important user-community relationship characteristic. Over time, users gather experiences and develop a meaningful understanding of the community's norms and their individual standing in the community, which likely affects how they respond to marketer-generated appeals (Bagozzi and Dholakia, 2006b; Mathwick *et al.*, 2008). As membership duration represents a characteristic that can be easily tracked by social media marketers, testing its moderating role in the context of appeals may offer fruitful targeting implications.

Hypotheses

Effect of engagement intensity on brand equity. Research suggests that engaging in online brand communities leads users to develop strong brand-specific perceptions. More intensively concerning oneself with a brand helps embed the brand in the user's mind, eventually resulting in higher brand awareness, more positive brand associations, enhanced quality perceptions, and increased loyalty, all of which constitute consumer-based brand equity (Schau *et al.*, 2009;

Thompson and Sinha, 2008). Indeed, consumer engagement has been suggested to appropriately capture the behaviors that determine consumers' brand co-creation (Hollebeek *et al.*, 2014; van Doorn *et al.*, 2010).

H1: Engagement intensity has a positive effect on brand equity.

Effect of marketer-generated appeals on engagement intensity. In this paper, the authors expect that normative appeals have a positive impact on engagement intensity. Prior research on the behavioral impact of social norms suggests that the desire to demonstrate conformity with social norms is a strong driver of consumer behavior in general (e.g., Burnkrant and Cousineau, 1975) and online user behavior in particular (Algesheimer *et al.*, 2005; Dholakia *et al.*, 2004). Normative appeals leverage normative social influence by informing users about the codes of conduct or the social norms within a community (Schumann *et al.*, 2014). Confronted with these norms, users make an effort to demonstrate affiliation with other users of the online brand community by adjusting their engagement behavior accordingly (Berger and Ward, 2010).

H2: Normative appeals have a positive effect on engagement intensity.

In this research, the authors also expect utilitarian appeals to exert a positive effect on engagement intensity resulting from exchanges between marketers and users. Social exchange theory implies that striving for economic benefits is a strong motivational driver of behavior and that users evaluate social exchanges in terms of costs and rewards (Blau, 1964). Addressing this motivational driver, marketers employ utilitarian appeals to provide users with opportunities to save expenses (e.g., product vouchers) or gain tangible rewards (e.g., free products) when engaging in the online brand community (Lee *et al.*, 2015). Thus, utilitarian appeals emphasize what community members can expect from the marketer in return for engaging with the online brand community (Hennig-Thurau *et al.*, 2004).

H3: Utilitarian appeals have a positive effect on engagement intensity.

Moderation effects of entertainment value. The authors hypothesize that the effectiveness of normative and utilitarian appeals for driving engagement intensity is lower for users who perceive the community as being highly entertaining. Perceptions of entertainment value establish intrinsic reasons for users to engage (e.g., fun and excitement; Dholakia *et al.*, 2004; Lin and Lu, 2011). Users who draw entertainment value from the community cherish the feeling of having free choice when engaging in the community. Persuading these users to adopt a specific behavior for extrinsic reasons such as social conformity (normative appeals) or tangible benefits (utilitarian appeals) distracts them from engaging in the community for reasons of entertainment, limits their enjoyment, and is often perceived as an attempt to control them — eventually undermining their intrinsic motivations to engage (Ryan and Deci, 2000; Stephen *et al.*, 2015).

H4: The positive effect of normative appeals on engagement intensity is weaker when entertainment value is high.

H5: The positive effect of utilitarian appeals on engagement intensity is weaker when entertainment value is high.

Moderation effects of content consumption asymmetry. Generally speaking, UGC and MGC feature different informational aspects that speak to different types of users (Goh *et al.*, 2013). In particular, users high in content consumption asymmetry favor the consumption of UGC over the consumption of MGC because they want to gather more authentic, objective, and use-oriented product information (Goh *et al.*, 2013). Importantly, such users are also more willing to contribute to the community themselves in reciprocity for the valuable information they have been offered by other users (Yang *et al.*, 2012). The authors therefore propose that users characterized by high content consumption asymmetry are more likely to engage due to a general

disposition towards community participation when they are called to action via normative or utilitarian appeals.

H6: The positive effect of normative appeals on engagement intensity is stronger when content consumption asymmetry is high.

H7: The positive effect of utilitarian appeals on engagement intensity is stronger when content consumption asymmetry is high.

Moderation effects of membership duration. The authors expect that normative appeals will be less effective for eliciting engagement intensity if membership duration is long. Specifically, they argue that the information provided by normative appeals about the behaviors of other community members is particularly valuable for newcomers to the online brand community, as long-term members are already familiar with typical community practices (Lakhani and Von Hippel, 2003; Schau *et al.*, 2009). Long-term members know exactly what is acceptable in a community and hence focus more confidently on personal goals within the community's boundaries, which corresponds to a stronger activation of the individual self (White and Simpson, 2013). In other words, information about what other community members do is less important for long-term members in making behavioral decisions than it is for short-term, less-experienced members. Thus, the effect of normative appeals on engagement intensity should be weaker in long-term community-user relationships.

H8: The positive effect of normative appeals on engagement intensity is weaker when membership duration is long.

Finally, the authors expect that membership duration will accentuate the effect of utilitarian appeals on engagement intensity. Prior research shows that utilitarian appeals work best when

users are less concerned with their self-images (White and Peloza, 2009) and are more focused on personal goals. In general, as long-term members already enjoy a higher and more stable status in the community (McAlexander *et al.*, 2002), they are less afraid that their actions may harm their public self-image in the online brand community. Indeed, long membership status and reputation build social capital (Mathwick *et al.*, 2008), which acts as insurance against sanctions of other members and hence facilitates the open pursuit of self-focused economic motives (responding to utilitarian appeals). Thus, the authors suggest that long-term community members might be less reluctant to demonstrate rather egoistic motives in responding to utilitarian appeals.

H9: The positive effect of utilitarian appeals on engagement intensity is stronger when membership duration is long.

Study 1

In this research, the authors make use of the strengths of a multi-method approach to test the hypotheses. Specifically, they conducted two studies. In Study 1, they build on matched-field data on real marketer activities, real user behaviors, and user perceptions to test the main effect hypotheses (H1 - H3). In Study 2, the authors make use of a large-scale experiment to replicate the findings in Study 1 and to provide additional knowledge on the hypothesized moderator effects (H4 - H9).

Study design and sample

In Study 1, to test H1 through H3, the authors conducted a field study on the Facebook brand page of an European online retailer. This setting is most suitable because it involves elaborate customer decision making (Dholakia *et al.*, 2009). The brand page allows users to engage by creating UGC (user posts or comments) or by liking or sharing UGC (other user posts or comments) and MGC (brand posts or comments). That is, both users and the retailer can

contribute content and react to any content. Data for this study stem from three matched sources: marketer activities at the brand page, observations of user behavior on the brand page, and a survey. To match real behavior and survey data, only those survey respondents were considered who disclosed their Facebook names and opted in to behavior observation at the end of the survey (no incentives were provided for the opt-in). Further, because this research focuses on how appeals affect user engagement and brand equity, not whether they do so, this study follows the procedure used by Goh *et al.* (2013) and Zhang *et al.* (2013) and only includes those respondents in the sample who complied with (liked, shared, replied) at least one appeal provided by the retailer in the measurement period.^[2] This procedure resulted in matched data on marketer actions, user behavior, and perceived brand equity for 72 users. Given the difficulty of achieving a satisfying sample size with matched data (Rishika *et al.*, 2013), and given the small sample sizes in similar studies (Hollenbeck and Kaikati, 2012), this sample is considered to be a good starting point for this study.

Measurement

Brand equity was measured by adapting an item from prior research (Arnett *et al.*, 2003; Yoo and Donthu, 2001): “Even if another Online Shop has the same offers as [brand]’s Online Shop, I would prefer to buy at [brand’s] Online Shop” (anchored by 1 = strongly disagree and 7 = strongly agree). Given the reflective nature of related brand equity measures, prior research implies that the incremental value a brand adds to an offering can be best captured through this single item in order to support research parsimony (Agarwal and Rao, 1996; Arnett *et al.*, 2003;). Engagement intensity was measured as the sum of a user’s observable engagement activities on the Facebook brand page in the month prior to the survey. To account for the user’s underlying

effort (Hollebeek *et al.*, 2014), the engagement activities were weighted (liking of content = 1, sharing of content = 2, initial posting of own content = 3).

In line with recent related studies (Goh *et al.*, 2013; Zhang *et al.*, 2013), normative (utilitarian) appeals were measured as the sum of the respective appeals with which a user complied in the four to two months prior to the survey. The authors relied on human coders to classify MGC in the form of Facebook posts made by the brand as normative or utilitarian appeals in two consecutive steps. First, to exclude nonappeal posts (posts not containing a call to action to encourage consumer behavior, for example “Have a great weekend.”), the coders classified all marketer-generated posts as to whether they contained appeals. Using binary scales (yes/no), they then indicated whether these appeals were normative or utilitarian. The coders used items that parallel the aforementioned definitions of normative appeals (stressing what other people do) or utilitarian appeals (highlighting the benefits to oneself resulting from tangible rewards or cost reductions). If the two coders did not agree on a post, agreement was achieved by discussion. In addition to receiving training, the coders received detailed coding instructions^[3] and were blind to the hypotheses of this research (Kolbe and Burnett, 1991). The intercoder reliability was high for both appeal types ($\alpha \geq .74$).

Finally, demographic controls were included for gender, age (anchored by 1 = below 18 and 7 = above 60), and education level (anchored by 1 = no degree and 8 = doctorate degree). As the measures for the independent and the dependent variables were obtained from different sources and at different time periods, the results are not assumed to be biased by common method variance and that simultaneity or reverse causality issues were ruled out (Kumar *et al.*, 2016; Podsakoff *et al.*, 2003). Table I provides the descriptive statistics and the correlation matrix.

[Insert Table I about here]

Methodology

To test the hypotheses, the authors employ seemingly unrelated regression (SUR) for three reasons. First, SUR is applicable for analyses where the dependent variable in one regression becomes an independent variable in a subsequent regression — that is, where the equations are theoretically related and standard errors might be nonindependent across equations (Wallace and Silver, 1988). Second, one can always debate whether the set of considered variables in a model is exhaustive. Other variables may also affect the relationship between appeals for engagement and brand equity, which may lead to overestimation of standard errors. In such instances, SUR yields more efficient estimates than ordinary least squares regression because it accounts for correlated errors and corrects the overestimation of standard errors (Zellner, 1962). Finally, the hypothesized relationships imply that engagement intensity acts as a mediator for the effects of marketer-generated appeals on brand equity. SUR is advantageous in testing for mediation because direct and indirect effects are tested simultaneously (Preacher and Hayes, 2008). In sum, SUR is the most appropriate statistical solution for examining the hypothesized relationships. The following two equations were estimated simultaneously.

$$BE_i = \beta_0 + \beta_1 EI_i + \beta_2 NA_i + \beta_3 UA_i + \beta_4 GEN_i + \beta_5 AGE_i + \beta_6 EDU_i + \varepsilon_{1i} \quad (1)$$

$$EI_i = \gamma_0 + \gamma_1 NA_i + \gamma_2 UA_i + \gamma_3 GEN_i + \gamma_4 AGE_i + \gamma_5 EDU_i + \varepsilon_{2i} \quad (2)$$

where BE_i is brand equity, EI_i is engagement intensity, and NA_i (UA_i) refers to normative (utilitarian) appeals. The included control variables were: GEN_i is gender, AGE_i is age, and EDU_i is education level. Finally, ε_{1i} (ε_{2i}) is the disturbance term of subject i . Equation 1 represents the brand equity model, and Equation 2 represents the engagement intensity model.

As the sample comprises only users who complied with appeals within the appeal observation period, the estimated regression parameters might be biased owing to sample self-selection based

on the user's decision to react to content in the brand community. To account for this bias, the authors relied on the Heckman (1976) two-step procedure. First, they estimated a probit model for the user participation decision based on a sample containing both those who responded to appeals and those who did not. In this model, the authors considered demographic factors (e.g., age), concerns of data privacy (e.g., disclosure of the e-mail address in the survey), and indicators of Facebook use (e.g., Facebook use frequency) as drivers of users' participation decisions. Second, the Heckman correction factor (or inverse Mills ratio), calculated on the basis of the estimates from the probit model, was included as another independent variable in the SUR equation system (brand equity and engagement intensity).

Results

The fit for the SUR models is satisfactory: the results demonstrate an R^2 of .134 (.438) for the brand equity model (engagement intensity model) and an overall system R^2 of .318.

Table II contains the results for the two equations. In support of H1, the results show that engagement intensity exerts a significant positive effect on brand equity ($\beta_1 = .141, p \leq .05$).

The results also support H2, as they show a significant positive effect of normative appeals on engagement intensity ($\gamma_1 = .353, p \leq .01$). There is also support for H3, as utilitarian appeals have a positive effect on engagement intensity ($\gamma_2 = .313, p \leq .05$).

[Insert Table II about here]

Mediation testing

The argumentation put forward implies that marketer-generated appeals have an indirect effect on brand equity that is mediated through engagement intensity. Therefore, mediation testing is conducted by using the products of coefficient method to determine the indirect effects^[4] and estimating bias-corrected bootstrapped confidence intervals for significance testing of each

indirect effect (Zhao *et al.*, 2010). The results show that marketer-generated appeals indirectly affect brand equity through engagement intensity. Normative appeals exert a significant positive indirect effect on brand equity that is mediated by engagement intensity ($\gamma_1\beta_1 = .050$, lower-level confidence interval [LLCI] = .001, upper-level confidence interval [ULCI] = .130) as well as utilitarian appeals, indicated by a significant positive indirect effect on brand equity, which is mediated by engagement intensity ($\gamma_2\beta_1 = .044$, LLCI = .003; ULCI = .132). Further, there is a significant direct effect from normative appeals on brand equity ($\beta_2 = .016$, $p > .10$), a result that indicates that engagement intensity fully mediates the impact of normative appeals on brand equity (Zhao *et al.*, 2010). However, there is a weakly significant negative direct effect for utilitarian appeals on brand equity ($\beta_3 = -.119$, $p < .10$), indicating that engagement intensity partially mediates the impact of utilitarian appeals on brand equity.

Discussion of Study 1

The results of Study 1 are promising. In support of the main effects hypotheses, the results demonstrate that both types of appeals can function as effective means for enhancing engagement intensity and brand equity in turn. The strengths of the results lie in the study's authentic setting — the combination of data on real-life marketer actions, user actions, and surveyed user perceptions — as well as the strong empirical support that is provided by highly significant effects notwithstanding the small sample, which makes the estimations of the impact of appeals conservative. It is important to consider that the effects of appeals were examined after addressing user self-selection, a major issue when observing behavioral engagement in social media (Goh *et al.*, 2013; Kumar *et al.*, 2016). However, this study also invites criticism with respect to the generalizability of the findings to other settings and the choice of one specific approach to measure brand equity, along with the small sample size and potential endogeneity

between the measures of appeals and engagement not controlled for by the Heckman correction procedure. Therefore, the results were experimentally validated in a second study that addresses these shortcomings by using an experimental design and by adopting another brand equity measure.

Study 2

Study design and sample

To test the moderation hypotheses, Study 2 was conducted in collaboration with a large European manufacturer of fast-moving consumer goods. The manufacturer hosts an online community for its laundry detergent brand, with approximately 900,000 users at the time of data collection. It is hosted as a dedicated website with forum functionalities, which allows users to provide UGC and to consume both UGC and MGC. Thus, the community serves as a platform to facilitate an exchange of brand experiences between users and between users and the manufacturer.

In Study 2, the authors build on a three (manipulation; normative appeal vs. utilitarian appeal vs. control) \times continuous (measured variables; moderators) between-subjects scenario experiment combined with a subsequent online survey among a panel of community members who had opted in to be contacted by the company. Each treatment scenario was pretested for comprehensibility prior to the study. At the beginning of the study, respondents were randomly assigned to one of the three scenario conditions. Each scenario took the form of a newsletter integrated into the survey website that adopted the design template and voicing generally used by the manufacturer to communicate with community members. Participants were instructed to imagine that they were reading the newsletter in their e-mail inbox. Table III provides the e-mail text for each scenario. After exposure to the treatment, the respondents completed a survey that included items for brand equity, engagement intensity, moderators, manipulation checks, and controls. A total of

1,311 panel members completed the survey. Responses were equally distributed among the treatment groups.

[Insert Table III about here]

Measurement

Established scales were used for construct measurement. All scale items used in this study are provided in Table IV. To measure brand equity, the authors used eight items of the consumer-based brand equity scale by Pappu *et al.* (2005) and an enhanced version of the scale developed by Yoo and Donthu (2001). All brand equity items were measured on seven-point scales, anchored by 1 = strongly disagree and 7 = strongly agree. Engagement intensity was measured through self-reports using three items adapted from Dholakia *et al.* (2004) and Harrison-Walker (2001). The items were rated on a 100-point scale anchored by “not at all likely” and “totally likely”.^[5] To measure entertainment value, the authors adopted two items adapted from Dholakia *et al.* (2004), measured on a seven-point scale where 1 = strongly disagree and 7 = strongly agree. Cronbach’s alphas between .79 and .91 for all the multi-item measures confirmed that the scales were reliable (Bagozzi and Yi, 1988). Discriminant validity was achieved for the multi-item measures according to the Fornell and Larcker (1981) criteria.

For the remaining variables, self-developed items were used. The authors used two items to measure weekly UGC and MGC consumption anchored by 1 = never and 7 = daily. In accordance with other literature that employs asymmetry measures, they calculated content consumption asymmetry by subtracting MGC consumption from UGC consumption (Kumar *et al.*, 1995; McFarland *et al.*, 2008). Further, one item was used to measure membership duration anchored by 1 = less than one month and 7 = more than two years.

Several control factors were considered in this study. To account for the fact that users may differ in their social identification with the community, this analysis controlled for social identity,

measured on a seven-point scale where 1 = strongly disagree and 7 = strongly agree (Bagozzi and Dholakia, 2006a). To assess the effect of tonality of engagement, which might influence subsequent brand perceptions (Brodie *et al.*, 2011), the authors controlled for positive and negative engagement valence using a 100-point scale anchored by “not at all likely” and “totally likely”. Finally, they also controlled for login frequency and demographics (gender, age, education). Table I provides the descriptive statistics and correlation matrix for the scale constructs and controls.

As a manipulation check, the authors adopted the approach by White and Simpson (2013) by measuring the extent to which the appeals were perceived as normative (i.e., “The message that you viewed asked you to consider what other [brand] members are doing”) or utilitarian (i.e., “The message that you viewed asked you to consider what you could win”) using a seven-point scale.

[Insert Table IV about here]

Methodology

In this study, the authors applied SUR for the same reasons as in Study 1, and because the effects of dichotomous predictor variables can be readily assessed (Hayes, 2013). Thus, the following two equations were estimated simultaneously.

$$\begin{aligned}
 BE_i = & \beta_0 + \beta_1 EI_i + \beta_2 NA_i + \beta_3 UA_i + \beta_4 GEN_i + \beta_5 AGE_i + \beta_6 EDU_i + \beta_7 PEV_i + \beta_8 NEV_i + \\
 & \beta_9 LF_i + \beta_{10} SI_i + \beta_{11} EV_i + \beta_{12} CCA_i + \beta_{13} MD_i + \beta_{14} NA_i \times EV_i + \beta_{15} UA_i \times EV_i + \\
 & \beta_{16} NA_i \times CCA_i + \beta_{17} UA_i \times CCA_i + \beta_{18} NA_i \times MD_i + \beta_{19} UA_i \times MD_i + \varepsilon_{1i}
 \end{aligned} \tag{3}$$

$$\begin{aligned}
 EI_i = & \gamma_0 + \gamma_1 NA_i + \gamma_2 UA_i + \gamma_3 GEN_i + \gamma_4 AGE_i + \gamma_5 EDU_i + \gamma_6 LF_i + \gamma_7 SI_i + \gamma_8 EV_i + \gamma_9 CCA_i + \\
 & \gamma_{10} MD_i + \gamma_{11} NA_i \times EV_i + \gamma_{12} UA_i \times EV_i + \gamma_{13} NA_i \times CCA_i + \gamma_{14} UA_i \times CCA_i + \gamma_{15} NA_i \times MD_i + \\
 & \gamma_{16} UA_i \times MD_i + \varepsilon_{2i}
 \end{aligned} \tag{4}$$

where BE_i , EI_i , GEN_i , AGE_i , EDU_i have the same meaning as in Study 1, $NA_i(UA_i)$ is a binary variable to indicate the normative (utilitarian) appeal experimental treatments, PEV_i (NEV_i) is positive (negative) engagement valence, LF_i is login frequency, SI_i is social identity, EV_i is entertainment value, CCA_i is content consumption asymmetry, MD_i is membership duration, and ε_{1i} (ε_{2i}) is the disturbance term of subject i . Again, Equation 3 represents the brand equity model and Equation 4 represents the engagement intensity model. Although the authors expect the interactions to unfold their effects in the engagement intensity model, they were included in both equations to underline this expectation statistically.

Results

The manipulation checks confirmed that participants perceived the different marketer-generated appeals as intended. Participants in the normative appeal scenario reported higher levels of normative appeal perceptions ($M = 4.77$) than participants in the control scenario ($M = 4.01$; $p < .001$). Further, the utilitarian appeal scenario shows significantly higher levels of utilitarian appeal perceptions ($M = 4.99$) compared to the control scenario ($M = 3.95$; $p < .001$).

The fit for the SUR models is satisfactory: the results demonstrate an R^2 of .416 (.257) for the brand equity model (engagement intensity model) and an overall system R^2 of .342. As summarized in Table V, the results provide further support for H1 through H3, showing that normative appeals ($\gamma_1 = .150$, $p \leq .05$) and utilitarian appeals ($\gamma_2 = .160$, $p \leq .01$) have a significant positive effect on engagement intensity, which in turn has a positive significant effect on brand equity ($\beta_1 = .185$, $p \leq .01$). Further, the results support H4 and H5 because entertainment value attenuates the effects of normative appeals ($\gamma_{11} = -.218$, $p \leq .01$) and utilitarian appeals ($\gamma_{12} = -.132$, $p \leq .05$) on engagement intensity. Further, the positive effect of normative appeals on engagement intensity is not significantly stronger when content

consumption asymmetry is high ($\gamma_{13} = .067, p > .10$). Consequently, H6 is rejected. However, in support of H7, the results yield a positive and significant effect of the interaction between utilitarian appeals and content consumption asymmetry on engagement intensity ($\gamma_{14} = .153, p \leq .05$). Further, the effect of the interaction between membership duration and normative appeals on engagement intensity is positive and weakly significant ($\gamma_{15} = .115, p \leq .10$). H8 is therefore rejected. In contrast, the findings support H9 because the interaction between membership duration and utilitarian appeals yields a positive significant effect on engagement intensity ($\gamma_{16} = .142, p \leq .05$).

[Insert Table V about here]

Mediation testing

The authors tested the mediated effects by applying the same procedure as in Study 1 and using the products of coefficient method to determine the indirect effects and estimated bias corrected bootstrapped confidence intervals for significance testing of each indirect effect (Zhao *et al.*, 2010). Study 2 echoes the results from Study 1 by showing that normative appeals ($\gamma_1\beta_1 = .028, LLCI = .005, ULCI = .058$) and utilitarian appeals ($\gamma_2\beta_1 = .030, LLCI = .007; ULCI = .060$) exert significant positive effects on brand equity that are mediated by engagement intensity. As in Study 1, there is no significant direct effect of normative appeals on brand equity ($\beta_2 = -.076, p > .10$), but there is a negative and significant direct effect of utilitarian appeals on brand equity ($\beta_3 = -.136, p \leq .05$). Thus the findings that engagement intensity fully (partially) mediates the impact of normative appeals (utilitarian appeals) on brand equity can be replicated.

To test for mediated moderation, the authors considered only those interaction effects for which the analysis above yielded hypothesis support. Again, bootstrapped indirect effects were estimated to do so. The results show that the indirect effect of the interaction of normative

appeals and entertainment value weakens brand equity ($\gamma_{11}\beta_1 = -.040$, LLCI = $-.075$; ULCI = $-.013$). In contrast, the effect of the interaction between utilitarian appeals and entertainment value on brand equity is not significantly mediated by engagement intensity ($\gamma_{12}\beta_1 = -.024$, LLCI = $-.061$; ULCI = $.005$). The positive effect of normative appeals on brand equity through engagement intensity is not significantly stronger when content consumption asymmetry is high ($\gamma_{13}\beta_1 = .012$, LLCI = $-.010$; ULCI = $.044$). However, the positive and significant effect of the interaction between utilitarian appeals and content consumption asymmetry on brand equity is mediated by engagement intensity ($\gamma_{14}\beta_1 = .028$, LLCI = $.005$; ULCI = $.062$). The results do not show a significant indirect effect of the interaction between normative appeals and membership duration on brand equity through engagement intensity because the confidence interval includes zero ($\gamma_{15}\beta_1 = .021$, LLCI = $.000$; ULCI = $.055$). Lastly, the positive significant effect of the interaction between utilitarian appeals and membership duration on brand equity is mediated by engagement intensity ($\gamma_{16}\beta_1 = .026$, LLCI = $.006$; ULCI = $.054$). In addition, there are no significant direct effects of any of the interaction terms on brand equity ($p > .10$), which supports the prior theorizing that moderations play a role at the first step of the chain. That is, the results suggest mediated moderation rather than moderated mediation.

Discussion of Study 2

Study 2 replicates the effects found in Study 1. The results show positive and significant effects of normative and utilitarian appeals on brand equity that are mediated by engagement intensity. Interestingly, these effects are significant even though engagement valence is considered as a control, indicating that all engagement activities matter to develop a clearer brand picture in users' minds.

Further, Study 2 adds to Study 1 in that the moderating roles of entertainment value, content consumption asymmetry, and membership duration are considered. Entertainment value attenuates the effects of both appeals on user engagement and brand equity, content consumption asymmetry leverages the effect of utilitarian appeals, and membership duration leverages the effects of both appeals. However, the finding that membership duration enhances the effect of normative appeals contradicts H8. A possible explanation for this finding could be that long-term community members have internalized the community norms as part of their identities. Hence, acting in conformity with the community's social norms becomes an important driver of their behavior. Thus, when marketers employ community calls to action in the form of normative appeals, long-term members are more likely to engage more intensively.

In sum, Study 2 increases confidence in the validity of the effects found in Study 1. First, the study builds on a larger sample of real community members. Second, brand-related effects of user engagement are more likely to be observed in high-involvement settings such as the one that underlies Study 1. In contrast, Study 2 took place in a low-involvement context and thus provides more conservative testing of the hypotheses. Third, Study 2 uses alternate measures for engagement intensity^[6] and brand equity,^[7] thus demonstrating robustness of the effects across different measurement instruments. Table VI provides an overview on all findings from the hypotheses tests for Study 1 and Study 2.

[Insert Table VI about here]

Conclusion

Online brand communities increasingly emerge as firm employees share brand building responsibilities and hence brand management responsibilities with customers (Mende and van Doorn, 2014; Wirtz *et al.*, 2013). Hence there is a strong demand for empirical examination of

tactics that help marketers to co-create brand value in online brand communities. This paper introduced a model which considers the effects of specific marketer-generated appeals for user engagement on brand equity at the individual-user level. The results suggest that the intensity of users' engagement in such environments plays a vital role in explaining the brand-enhancing impact of appeals. This research further shows that entertainment value, content consumption asymmetry, and membership duration lead to variations in the brand impact of appeals. The findings provide meaningful implications for both marketing researchers and marketing managers.

Theoretical implications

The findings are relevant for marketing researchers in general and for researchers in the field of social media marketing in particular. First, this research is the first to offer empirical evidence of the brand effects of social media tactics beyond triggering user engagement within online brand communities. This evidence aligns well with recent notions that suggest the meaning of engagement might be underestimated when potential value-enhancing consequences at the focal user level (such as enhanced perceptions of brand equity) are not accounted for (Kumar *et al.*, 2010; Pansari and Kumar, 2016). As such, the findings imply that linking engagement to other potential consequences at a focal user level (e.g., purchase behavior) may be worthwhile for related research.

Second, the results also support both prior research discussing the motivations addressed by the examined appeals (Hennig-Thurau *et al.*, 2004; Jahn and Kunz, 2012) and research suggesting the use of community marketing instruments to enhance brand equity (Algesheimer *et al.*, 2005). This paper also responds to qualitative research requesting empirical testing of

community marketing instruments for enhancing brand equity through engaging users in online brand communities (Hennig-Thurau *et al.*, 2010; Wirtz *et al.*, 2013).

Third, this research shows that normative and utilitarian appeals exhibit the effects predicted by the normative social influence concept and social exchange theory, respectively. Specifically, normative appeals function by addressing a user's desire to demonstrate conformity with online brand community norms. Utilitarian appeals enable users to receive an economic benefit for themselves in return for engagement. Taken together, social media researchers might benefit from complementary use of both theories.

Fourth, this research further extends prior findings as it shows that an effective deployment of normative and utilitarian appeals to encourage behavior is not restricted to the context of cause-related marketing (Paulin *et al.*, 2014; White and Simpson, 2013). The findings suggest that marketer-generated appeals may coincide with significant branding effects beyond motivating charitable giving.

Fifth, the results highlight the role of engagement intensity in producing the appeals' impact on brand equity. This paper demonstrates that both normative and utilitarian appeals work to enhance brand perceptions, as both appeals have a significant positive effect on brand equity that is mediated by engagement intensity. Importantly, these effects hold while controlling for engagement valence. Contributing to the ongoing discussion of the role of volume and valence of engagement (Liu, 2006; Moe and Trusov, 2011), the findings suggest that triggering community buzz matters most in driving brand equity irrespective of its valence. This effect may occur because intense engagement in online brand communities entrenches the brand in the user's mind and thereby leads to stronger brand perceptions, regardless of the sentiment of the engagement activities. This result suggests that future studies concerned with brand effects in online brand

communities should consider engagement intensity to be a valuable mediator of the impact of their driver variables and not only as a final outcome.

Finally, by evaluating the moderating role of entertainment value, content consumption asymmetry, and membership duration, this paper furthers prior research that recommends examining which appeal is most appropriate in which context for encouraging user engagement (Bagozzi and Dholakia, 2006a; Dholakia *et al.*, 2004). For instance, in contrast to the hypothesized effect, the impact of normative appeals on user engagement is leveraged by longer community membership. This finding lends credence to the claim of Bagozzi and Dholakia (2006b) that normative social influence in online community environments increasingly impacts user engagement for members with greater experience. Further in line with the aforementioned work, this research shows that long-term members employ the community to satisfy personal needs as well as social needs. Specifically, long-term users are more likely to respond to utilitarian appeals and to engage in the online brand community to attain benefits for themselves, such as tangible rewards and cost benefits.

Managerial implications

Generally speaking, the authors concur that within online brand communities, marketing managers should proactively cede control over the brand to consumers to allow for collaborative brand building and communal service delivery. Given the finding that the intensity of engaging in collaborative activities, which is the lifeblood of communities, is also the lifeblood for brands, it is recommended that marketers encourage brand-related buzz in online brand communities through marketer-generated appeals. While both normative and utilitarian appeals come with these desirable consequences, the findings highlight when marketers benefit most from either

appeal. In a nutshell, the results suggest that managers should use a targeted approach in employing appeals.

First, both normative and utilitarian appeals become less effective if users already feel well entertained in an online brand community. This study's results thus speak to an either/or approach. When marketers implement many entertaining media elements or functionalities, they should avoid actively addressing such users with appeals because they are highly intrinsically motivated to engage in the community, and any external stimulus could crowd out this intrinsic impetus. When the community is not entertaining per se, however, intervening with normative and/or utilitarian appeals can be promising in terms of enhanced engagement and brand equity.

Second, as a counter-intuitive finding, the results suggest that utilitarian appeals are more effective for users who prefer UGC over MGC. However, these users might be more difficult to reach with marketer-generated appeals. Hence, a promising approach to reach such users may be to target well-connected community members who represent "social hubs" in online brand communities with utilitarian appeals (Hinz *et al.*, 2011). Encouraging these social hubs to spread marketer-generated messages in lieu of the firm (by liking or sharing MGC) may be crucial for seeding utilitarian appeals to users that predominantly consume UGC.

Finally, this research suggests that for long-term community members, the effects of both utilitarian and normative appeals are leveraged. Thus, marketers should track community membership duration and target both appeal types at long-term members to benefit from stronger brand equity effect.

Avenues for future research

This research has some limitations that offer fruitful avenues for future research. First, the examination is restricted to two specific appeals to drive engagement intensity and brand equity in online brand communities. Examining the effects of other appeals such as injunctive appeals (highlighting what established community members expect from typical members; White and Simpson, 2013) and also other MGC that may address, for instance, aspects of gamification (Marchand and Hennig-Thurau, 2013) might be a worthwhile avenue for further research.

Second, this research focuses on within-channel effects. Future research could also consider cross-channel effects. For instance, service requests and support in online brand communities may lead to offline contact with the firm's frontline employees, which could offer further potential to co-create brand value outside the online brand community (Morhart *et al.*, 2009). Conversely, customers who experience a favorable offline service encounter with frontline employees may be inclined to engage in the brand's online community to debate their brand experience (Wirtz and Lovelock, 2016).

Third, as a nonhypothesized yet meaningful finding, the results indicate that utilitarian appeals also have a negative direct effect on brand equity in addition to their positive effect through engagement intensity. This finding corresponds with concerns in other research streams that suggest that "purchased" user behavior might come with pitfalls (Ryu and Feick, 2007). Given the widespread popularity of utilitarian appeals in marketing practice, future research should strive for a better understanding of utilitarian appeals' brand effects. In particular, research efforts could contrast engagement intensity as a "bright-side" mediator of utilitarian appeals' positive effect on brand equity with a potentially missing "dark-side" mediator such as consumer reactance that explains utilitarian appeals' negative effect on brand equity.

Fourth, the results show a positive moderation effect of membership duration on the effect of normative appeals on engagement intensity. This implies that for communities with an experienced user base, processes of normative social influence and interpersonal relationships are becoming increasingly important, raising another promising avenue for further research. In particular, the direction of engagement activities in online brand communities (i.e., undirected, directed at the firm, or directed at other community members) is often overlooked and could be addressed by further research (Goh *et al.*, 2013).

Notes

- [1] Other researchers have coined various terms, including peer-to-peer communities (Dholakia *et al.*, 2009), customer-to-customer communities (Libai *et al.*, 2010), and virtual customer communities (Mathwick *et al.*, 2008). In this research, the authors use “online brand communities” as a synonym for these terms. Online brand communities are defined as an “aggregation of individuals or business partners who interact based on a shared interest, where the interaction is supported or mediated by technology” (Porter and Donthu, 2008, p. 115). Please note that this definition aligns well with broader understandings of on- and offline brand communities (McAlexander *et al.*, 2002; Muñiz and O’Guinn, 2001; Wirtz *et al.*, 2013).
- [2] Note that the model estimation strategy corrects for potential biases from user self-selection.
- [3] Coding instructions are available on request.
- [4] For example, the indirect effect of normative appeals on brand equity (via engagement intensity) results from multiplying the respective direct effect coefficients from the two SUR models (i.e., $\gamma_1 \times \beta_1$).

- [5] Natural logarithmic transformation was undertaken for this measure to reduce the spread and skewness of the distribution.
- [6] The Study 2 measure of engagement intensity builds on behavioral intentions. In the context of online activities, the measurement of intentions has high predictive power for actual behavior and thus has been considered appropriate (Pauwels and van Ewijk, 2013).
- [7] The Study 2 measure reflects the multiple facets of brand equity (Pappu *et al.*, 2005; Yoo and Donthu, 2001) and thus is more comprehensive than the Study 1 measure.

References

- Aaker, D.A. (1991), *Managing Brand Equity*, The Free Press, New York.
- Agarwal, M.K. and Rao, V.R. (1996), “An empirical comparison of consumer-based measures of brand equity,” *Marketing Letters*, Vol. 7 No. 3, pp. 237–247.
- Algesheimer, R., Dholakia, U.M. and Herrmann, A. (2005), “The social influence of brand community: Evidence from European car clubs”, *Journal of Marketing*, Vol. 69 No. 3, pp. 19–34.
- Arnett, D.B., Laverie, D.A. and Meiers, A. (2003), “Developing parsimonious retailer equity indexes using partial least squares analysis: A method and applications”, *Journal of Retailing*, Vol. 79 No. 3, pp. 161–170.
- Asmussen, B., Harridge-March, S., Occhiocupo, N. and Farquhar, J. (2013), “The multi-layered nature of the internet-based democratization of brand management”, *Journal of Business Research*, Vol. 66 No. 9, pp. 1473–1483.
- Bagozzi, R.P. and Dholakia, U.M. (2006a), “Antecedents and purchase consequences of customer participation in small group brand communities”, *International Journal of Research in Marketing*, Vol. 23 No. 1, pp. 45–61.
- Bagozzi, R.P. and Dholakia, U.M. (2006b), “Open source software user communities: A study of participation in Linux user groups”, *Management Science*, Vol. 52 No. 7, pp. 1099–1115.
- Bagozzi, R.P. and Yi, Y. (1988), “On the evaluation of structural equation models”, *Journal of the Academy of Marketing Science*, Vol. 16 No. 1, p. 74.
- Barnes, N.G. and Lescault, A.M. (2015), “The 2015 Fortune 500 and social media: Instagram gains, blogs lose”, available at: <http://www.umassd.edu/cmr/socialmediaresearch/2015fortune500/> (accessed 1 September 2016).

- Benoit (née Moeller), S., Bilstein, N., Hogreve J., and Sichtmann, C. (2016), “Explaining social exchanges in information-based online communities (IBOCs),” *Journal of Service Management*, Vol. 27 No. 4, pp. 460–480.
- Berger, J. and Milkman, K.L. (2012), “What makes online content viral?” *Journal of Marketing Research*, Vol. 49 No. 2, pp. 192–205.
- Berger, J. and Ward, M. (2010), “Subtle signals of inconspicuous consumption”, *The Journal of Consumer Research*, Vol. 37 No. 4, pp. 555–569.
- Blau, P.M. (1964), *Exchange and power in social life*, John Wiley and Sons, New York.
- Brodie, R.J., Hollebeek, L.D., Jurić, B. and Ilić, A. (2011), “Customer engagement: Conceptual domain, fundamental propositions and implications for research”, *Journal of Service Research*, Vol. 14 No. 3, pp. 252–271.
- Burnkrant, R.E. and Cousineau, A. (1975), “Informational and normative social influence in buyer behavior”, *Journal of Consumer Research*, Vol. 2 No. 3, pp. 206–215.
- de Vries, L., Gensler, S. and Leeflang, P.S.H. (2012), “Popularity of brand posts on brand fan pages: An investigation of the effects of social media marketing”, *Journal of Interactive Marketing*, Vol. 26 No. 2, pp. 83–91.
- Dholakia, U.M., Bagozzi, R.P. and Pearo, L.K. (2004), “A social influence model of consumer participation in network- and small-group based virtual communities”, *International Journal of Research in Marketing*, Vol. 21 No. 3, pp. 241–263.
- Dholakia, U.M., Dholakia, V., Blazevic, C., Wiertz, R. and Algesheimer, R. (2009), “Communal service delivery: How customers benefit from participation in firm-hosted virtual P3 communities”, *Journal of Service Research*, Vol. 12 No. 2, pp. 208–226.
- Fornell, C. and Larcker, D.F. (1981), “Evaluating structural equation models with unobservable variables and measurement error”, *Journal of Marketing Research*, Vol. 18 No. 1, pp. 39–50.

- Garnefeld, I., Iseke, A. and Krebs, A. (2012), “Explicit incentives in online communities: Boon or bane?” *International Journal of Electronic Commerce*, Vol. 17 No. 1, pp. 11–38.
- Goh, K.-Y., Heng, C.-S. and Lin, Z. (2013), “Social media brand community and consumer behavior: Quantifying the relative impact of user- and marketer-generated content”, *Information Systems Research*, Vol. 24 No. 1, pp. 88–107.
- Hammedi, W., Kandampully, J., Zhang, T.T. and Bouquiaux, L. (2015), “Online customer engagement: Creating social environments through brand community constellations”, *Journal of Service Management*, Vol. 26 No. 5, pp. 777–806.
- Harrison-Walker, L.J. (2001), “The measurement of word-of-mouth communication and an investigation of service quality and customer commitment as potential antecedents”, *Journal of Service Research*, Vol. 4 No. 1, pp. 60–75.
- Hayes, A.F. (2013), *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach*, The Guilford Press, New York.
- Heckman, J.J. (1976), “The common structure of statistical models of truncation, sample selection and limited dependent variables and a simple estimator for such models”, in *Annals of Economic and Social Measurement*, Vol. 5 No. 4. NBER, pp. 475–492.
- Hennig-Thurau, T., Gwinner, K.P., Walsh, G. and Gremler, D.D. (2004), “Electronic word-of-mouth via consumer-opinion platforms: What motivates consumers to articulate themselves on the Internet?” *Journal of Interactive Marketing*, Vol. 18 No. 1, pp. 38–52.
- Hennig-Thurau, T., Malthouse, E.C., Friege, C., Gensler, S., Lobschat, L., Rangaswamy, A. and Skiera, B. (2010), “The impact of new media on customer relationships”, *Journal of Service Research*, Vol. 13 No. 3, pp. 311–330.
- Hinz, O., Skiera, B., Barrot, C. and Becker, J.U. (2011), “Seeding strategies for viral marketing: An empirical comparison”, *Journal of Marketing*, Vol. 75 No. 6, pp. 55-71.

- Hollebeck, L.D., Glynn, M.S. and Brodie, R.J. (2014), “Consumer brand engagement in social media: Conceptualization, scale development and validation”, *Journal of Interactive Marketing*, Vol. 28 No. 2, pp. 149–165.
- Hollenbeck, C.R. and Kaikati, A.M. (2012), “Consumers’ use of brands to reflect their actual and ideal selves on Facebook”, *International Journal of Research in Marketing*, Vol. 29 No. 4, pp. 395–405.
- Homburg, C., Ehm, L. and Artz, M. (2015), “Measuring and managing consumer sentiment in an online community environment”, *Journal of Marketing Research*, Vol. 52 No. 5, pp. 629–641.
- Jahn, B. and Kunz, W. (2012), “How to transform consumers into fans of your brand”, *Journal of Service Management*, Vol. 23 No. 3, pp. 344–361.
- Keller, K.L. (1993), “Conceptualizing, measuring, managing customer-based brand equity”, *Journal of Marketing*, Vol. 57 No. 1, pp. 1–22.
- Keller, K.L. and Lehmann, D.R. (2006), “Brands and branding: Research findings and future priorities”, *Marketing Science*, Vol. 25 No. 6, pp. 740–759.
- Knoke, D. (1988), “Incentives in collective action organizations”, *American Sociological Review*, Vol. 53 No. 3, pp. 311–329.
- Kolbe, R.H. and Burnett, M.S. (1991), “Content-analysis research: An examination of applications with directives for improving research reliability and objectivity”, *Journal of Consumer Research*, Vol. 18 No. 2, pp. 243–250.
- Kozinets, R.V., de Valck, K., Wojnicki, A.C. and Wilner, S.J. (2010), “Networked narratives: Understanding word-of-mouth marketing in online communities”, *Journal of Marketing*, Vol. 74 No. 2, pp. 71–89.

- Kumar, A., Bezawada, R., Rishika, R., Janakiraman, R. and Kannan, P.K. (2016), “From social to sale: The effects of firm generated content in social media on customer behavior”, *Journal of Marketing*, Vol. 80 No. 1, pp. 7–25.
- Kumar, N., Scheer, L.K. and Steenkamp, J.E.M. (1995), “The effects of perceived interdependence on dealer attitudes”, *Journal of Marketing Research*, Vol. 32 No. 3, pp. 348–356.
- Kumar, V., Aksoy, L., Donkers B., Venkatesan, R., Wiesel, R. and Tillmanns, S. (2010), “Undervalued or overvalued customers: Capturing total customer engagement value”, *Journal of Service Research*, Vol. 13 No. 3, pp. 297–310.
- Lakhani, K.R. and Von Hippel, E. (2003), “How open source software works: ‘Free’ user-to-user assistance”, *Research Policy*, Vol. 32 No. 6, pp. 923–943.
- Lee, D., Hosanagar, K. and Nair, H.S. (2015), “Advertising content and consumer engagement on social media: Evidence from Facebook”, *Working Paper*, Social Science Research Network.
- Libai, B., Bolton, R., Bügel, M.S., de Ruyter, K., Götz, O., Risselada, H. and Stephen, A.T. (2010), “Customer-to-customer interactions: Broadening the scope of word of mouth research”, *Journal of Service Research*, Vol. 13 No. 3, pp. 267–282.
- Lin, K.Y. and Lu, H.P. (2011), “Why people use social networking sites: An empirical study integrating network externalities and motivation theory”, *Computers in Human Behavior*, Vol. 27 No. 3, pp. 1152–1161.
- Lipsman, A., Mudd, G., Rich, M. and Bruich, S. (2012), “The power of ‘like’: How brands reach (and influence) fans through social-media marketing”, *Journal of Advertising Research*, Vol. 52 No. 1, p. 40.
- Liu, Y. (2006), “Word of mouth for movies: Its dynamics and impact on box office revenue”, *Journal of Marketing*, Vol. 70 No. 3, pp. 74–89.

- Marchand, A. and Hennig-Thurau, T. (2013), “Value creation in the video game industry: Industry economics, consumer benefits, and research opportunities”, *Journal of Interactive Marketing*, Vol. 27 No. 3, pp. 141–157.
- Mathwick, C., Wiertz, C. and Ruyter, K. (2008), “Social capital production in a virtual P3 community”, *Journal of Consumer Research*, Vol. 34 No. 6, pp. 832–849.
- McAlexander, J.H., Schouten, J.W. and Koenig, H.F. (2002), “Building brand community”, *Journal of Marketing*, Vol. 66 No. 1, pp. 38–54.
- McFarland, R.G.R., Bloodgood, J.M. and Payan, J.M. (2008), “Supply chain contagion”, *Journal of Marketing*, Vol. 72 March, pp. 63–79.
- Mende, M. and van Doorn, J. (2014), “Coproduction of transformative services as a pathway to improved consumer well-being: Findings from a longitudinal study on financial counseling”, *Journal of Service Research*, Vol. 18 No. 3, pp. 351–368.
- Moe, W.W. and Trusov, M. (2011), “The value of social dynamics in online product ratings forums”, *Journal of Marketing Research*, Vol. 48 No. 3, pp. 444–456.
- Morhart, F.M., Herzog, W. and Tomczak, T. (2009), “Brand-specific leadership: Turning employees into brand champions”, *Journal of Marketing*, Vol. 73 No. 5, pp. 122–142.
- Muñiz, A.M. and O’Guinn, T.C. (2001), “Brand community”, *Journal of Consumer Research*, Vol. 27 No. 4, pp. 412–432.
- Nolan, J.M., Schultz, P.W., Cialdini, R.B., Goldstein, N.J. and Griskevicius, V. (2008), “Normative social influence is underdetected”, *Personality and Social Psychology Bulletin*, Vol. 34 No. 7, pp. 913–923.
- Pansari, A. and Kumar, V. (2016), “Customer engagement: The construct, antecedents, and consequences,” *Journal of the Academy of Marketing Science*, in press, pp. 1-18.

- Pappu, R., Quester, P.G. and Cooksey, R.W. (2005), "Consumer-based brand equity: Improving the measurement—empirical evidence", *Journal of Product and Brand Management*, Vol. 14 No. 3, pp. 143–154.
- Paulin, M., Ferguson, R.J., Jost, N. and Fallu, J.-M. (2014), "Motivating millennials to engage in charitable causes through social media", *Journal of Service Management*, Vol. 25 No. 3, pp. 334–348.
- Pauwels, K. and van Ewijk, B. (2013), "Do online behavior tracking or attitude survey metrics drive brand sales? An integrative model of attitudes and actions on the consumer boulevard", *Marketing Science Institute Working Paper Series*, pp. 13-118.
- Podsakoff, P.M., MacKenzie, S.B., Lee, J.-Y. and Podsakoff, N.P. (2003), "Common method biases in behavioral research: A critical review of the literature and recommended remedies", *Journal of Applied Psychology*, Vol. 88 No. 5, pp. 879–903.
- Porter, C.E. and Donthu, N. (2008), "Cultivating trust and harvesting value in virtual communities", *Management Science*, Vol. 54 No. 1, pp. 113–128.
- Preacher, K.J. and Hayes, A.F. (2008), "Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models", *Behavior Research Methods*, Vol. 40 No. 3, pp. 879–891.
- Rishika, R., Kumar, A., Janakiraman, R. and Bezawada, R. (2013), "The effect of customers' social media participation on customer visit frequency and profitability: An empirical investigation", *Information Systems Research*, Vol. 24 No. 1, pp. 108–127.
- Ryan, R. and Deci, E. (2000), "Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being", *American Psychologist*, Vol. 55 No. 1, pp. 68–78.

- Ryu, G. and Feick, L. (2007), “A penny for your thoughts: Referral reward programs and referral likelihood”, *Journal of Marketing*, Vol. 71 No. 1, pp. 84–94.
- Schau, H.J., Muñiz, A.M. and Arnould, E.J. (2009), “How brand community practices create value”, *Journal of Marketing*, Vol. 73 No. 5, pp. 30–51.
- Schumann, J.H., von Wangenheim, F. and Groene, N. (2014), “Targeted online advertising: Using reciprocity appeals to increase acceptance among users of free web services”, *Journal of Marketing*, Vol. 78 No. 1, pp. 59–75.
- Singh, S. and Sonnenburg, S. (2012), “Brand performances in social media”, *Journal of Interactive Marketing*, Vol. 26 No. 4, pp. 189–197.
- Stephen, A.T., Sciandra, M.R. and Inman, J.J. (2015), “The effects of content characteristics on consumer engagement with branded social media content on Facebook”, *Marketing Science Institute Working Paper Series*.
- Thompson, S.A. and Sinha, R.K. (2008), “Brand communities and new product adoption: The influence and limits of oppositional loyalty”, *Journal of Marketing*, Vol. 72 No. 6, pp. 65–80.
- van Doorn, J., Lemon, K.N., Mittal, V., Nass, S., Pick, D., Pirner, P. and Verhoef, P.C. (2010), “Customer engagement behavior: Theoretical foundations and research directions”, *Journal of Service Research*, Vol. 13 No. 3, pp. 253–266.
- Wallace, D.T. and Silver, L.J. (1988), *Econometrics: An Introduction*, Addison-Wesley, Boston.
- White, K. and Peloza, J. (2009), “Self-benefit versus other-benefit marketing appeals: Their effectiveness in generating charitable support”, *Journal of Marketing*, Vol. 73 No. 4, pp. 109–124.
- White, K. and Simpson, B. (2013), “When do (and don’t) normative appeals impact sustainable consumer behaviors?” *Journal of Marketing*, Vol. 77 No. 2, pp. 1–51.

Wirtz, J., den Ambtman, A., Bloemer, J., Horváth, C., Ramaseshan, B., van de Klundert, J.,

Gurhan Canli, Z. and Kandampully, J. (2013), “Managing brands and customer engagement in online brand communities”, *Journal of Service Management*, Vol. 24 No. 3, pp. 223–244.

Wirtz, J. and Lovelock, C. (2016), *Services Marketing* 8th ed., World Scientific Publishing, Singapore.

Yang, S., Hu, M., Winer, R.S., Assael, H. and Chen, X. (2012), “An empirical study of word-of-mouth generation and consumption”, *Marketing Science*, Vol 31 No. 6, pp. 952-963.

Yoo, B. and Donthu, N. (2001), “Developing and validating a multidimensional consumer-based brand equity scale”, *Journal of Business Research*, Vol. 52 No. 1, pp. 1–14.

Yoo, B., Donthu, N. and Lee, S. (2000), “An examination of selected marketing mix elements and brand equity”, *Journal of the Academy of Marketing Science*, Vol. 28 No. 2, pp. 195–211.

Zellner, A. (1962), “An efficient method of estimating seemingly unrelated regressions and tests for aggregation bias”, *Journal of the American Statistical Association*, Vol. 57 No. 298, pp. 348–368.

Zhang, Y., Moe, W.W. and Schweidel, D.A. (2013), “Drivers of social media rebroadcasting: Investigating the role of message content and influencers”, *Working Paper*, March, Robert H. Smith School, University of Maryland.

Zhao, X., Lynch, J.G. and Chen, Q. (2010), “Reconsidering Baron and Kenny: Myths and truths about mediation analysis”, *Journal of Consumer Research*, Vol. 37 No. 2, pp. 197–206.

Figure 1. Conceptual framework.

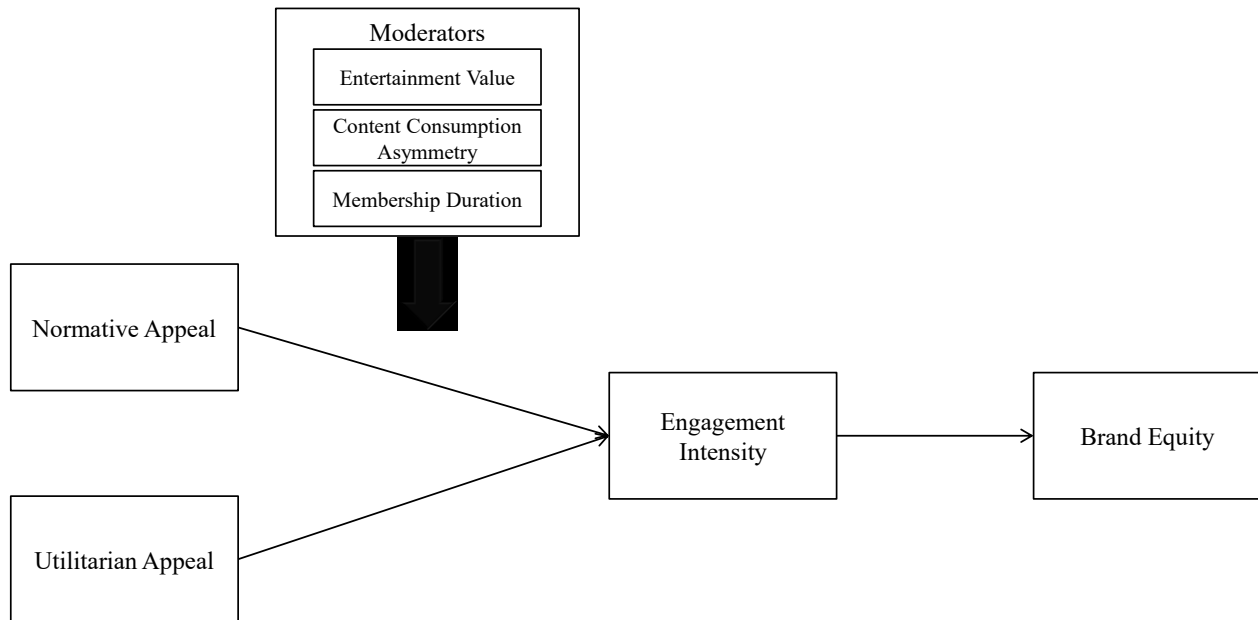


Table I. Descriptive statistics and correlations.

Measure	Study 1	Study 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14
	M (SD)	M (SD)														
1. Brand equity	5.10 (1.86)	5.60 (1.09)	1.00	.43	–	–	.01	.14	-.09	.41	.09	.21	.46	.54	-.02	.07
2. Engagement intensity	2.46 (3.57)	50.26 (26.24)	.22	1.00	–	–	.04	.09	-.12	.71	.40	.17	.42	.34	.09	-.02
3. Normative appeals	.46 (1.53)	--	.09	.59	1.00	–	–	–	–	–	–	–	–	–	–	–
4. Utilitarian appeals	1.96 (2.24)	--	-.04	.57	.67	1.00	–	–	–	–	–	–	–	–	–	–
5. Gender	.83 (.38)	.82 (.38)	-.06	.06	-.21	-.06	1.00	-.09	-.08	.05	-.09	.02	-.01	.08	-.02	-.02
6. Age	4.33 (1.35)	48.87 (11.60)	.07	.24	.22	.28	.03	1.00	-.16	.08	-.01	.21	.13	.12	-.19	.12
7. Education	3.95 (1.30)	.44 (.50)	.15	-.08	-.14	-.16	.27	-.08	1.00	-.10	-.06	-.08	-.10	-.12	-.01	.00
8. Positive engagement valence	–	49.82 (30.19)	–	–	–	–	–	–	–	1.00	.49	.20	.47	.34	.08	-.04
9. Negative engagement valence	–	27.17 (29.06)	–	–	–	–	–	–	–	–	1.00	.11	.24	.06	.11	-.06
10. Login frequency	–	3.17 (1.51)	–	–	–	–	–	–	–	–	–	1.00	.31	.26	-.30	.08
11. Social identity	–	4.23 (1.81)	–	–	–	–	–	–	–	–	–	–	1.00	.39	.01	.14
12. Entertainment value	–	5.82 (1.20)	–	–	–	–	–	–	–	–	–	–	–	1.00	-.06	.16
13. Content consumption asymmetry	–	-.37 (.78)	–	–	–	–	–	–	–	–	–	–	–	–	1.00	.01
14. Membership duration	–	5.84 (1.48)	–	–	–	–	–	–	–	–	–	–	–	–	–	1.00

Notes: Study 1 (2) correlations are reported below (above) the diagonal. For Study 1, correlations greater than or equal to $|\cdot 27|$ are statistically significant ($p < .05$, two-tailed). For Study 2, correlations greater than or equal to $|\cdot 06|$ are statistically significant ($p < .05$, two-tailed)

Table II. Results for Study 1.

Independent Variables	DV: Brand Equity			DV: Engagement Intensity		
	Coefficient	SE		Coefficient	SE	
Constant	4.204	4.642		10.397	9.502	
Engagement intensity	.141**	.057	H ₁ (✓)	–	–	
Normative appeals	.016	.055		.353***	.106	H ₂ (✓)
Utilitarian appeals	-.119*	.067		.313**	.134	H ₃ (✓)
<i>Controls</i>						
Gender (0 = female, 1 = male)	-.637	.603		1.811	1.227	
Age	.241	.466		-.766	.957	
Education	.275	.285		.348	.588	
Heckman correction factor	.615	1.955		-4.604	3.999	
R ²	.134			.438		

* = $p \leq .10$; ** = $p \leq .05$; *** = $p \leq .01$.

Notes: n = 72; results are based on two-tailed t-tests.

Table III. Description of treatments for Study 2.

Condition	Content/Text
Normative Appeal	<p>What makes [brand] so special for you?</p> <p>Let other [brand] members know why [brand] attracts you. A community like [brand] community lives on the content of its members.</p> <p>Share your experiences <i>here</i> as the other [brand] community members already do.</p> <p>Your [brand] community team</p>
Utilitarian Appeal	<p>What makes [brand] so special for you?</p> <p>Let other [brand] members know why [brand] attracts you. A community like [brand] community lives on the content of its members.</p> <p>Share your experiences <i>here</i> to get the chance to win one of 15 [brand] surprise packages worth 50€ each.</p> <p>Your [brand] community team</p>
Control	<p>What makes [brand] so special for you?</p> <p>Let other [brand] members know why [brand] attracts you. A community like [brand] community lives on the content of its members.</p> <p>Share your experiences <i>here</i>.</p> <p>Your [brand] community team</p>

Notes: For reasons of face validity, the appeals were designed according to the social media tactics commonly employed by the focal firm. The e-mails were consistent across scenarios in their design elements, with wording of the call to action being varied according to each of the three conditions. Because of a nondisclosure agreement, the design template of the e-mails cannot be revealed. In addition, as opposed to Study 1, please note that the utilitarian appeal scenario highlights tangible rewards only because the manufacturer does not offer utilitarian appeals that feature savings.

Table IV. Constructs and operationalization for Study 2.

Construct	Measures
Brand Equity	<i>Brand loyalty</i> I consider myself to be loyal to [brand]. ^a [brand] would be my first choice. ^a
	<i>Perceived quality</i> The likely quality of [brand] products is very high. ^a [brand] offers very reliable products. ^a
	<i>Brand awareness</i> I can quickly recall the symbol or logo of [brand]. ^a [brand] is very different from competing brands. ^a
	<i>Brand associations</i> I feel very proud to own products by [brand]. ^a I trust [brand]. ^a
Engagement Intensity	I will visit the [brand] community within the next four weeks and talk about [brand]. ^b
	I will mention [brand] in the community quite frequently. ^c
	I will be very detailed when I talk about [brand] in the community. ^c
Entertainment Value	The [brand] community is entertaining. ^b
	The [brand] community is fun. ^b
UGC and MGC Consumption	How often do you read [brand] community posts that are generated by other users? ^d
	How often do you read [brand] community posts that are generated by marketers of [brand]? ^d
Membership Duration	How long have you been a member in the [brand] community? ^d
Social Identity	I feel attached to the [brand] community. ^c
Positive Engagement Valence	I will visit the [brand] community to mention what I like about [brand]. ^d
Negative Engagement Valence	I will visit the [brand] community to mention what I do not like about [brand]. ^d

Notes: ^aItems taken from the consumer-based brand equity scale by Pappu *et al.* (2005), adapted for this research. ^bItems developed by Dholakia *et al.* (2004), adapted for this research. ^cItems developed by Harrison-Walker (2001), adapted for this research. ^dItems self-developed for this research. ^eItems developed by Bagozzi and Dholakia (2006b).

Table V. Results for Study 2.

Independent Variables	DV: Brand Equity			DV: Engagement Intensity		
	Coefficient	SE		Coefficient	SE	
Constant	-.595***	.174		3.335***	.179	
Engagement Intensity	.185***	.030	H ₁ (✓)	–	–	
Normative Appeal	-.076	.052		.150**	.061	H ₂ (✓)
Utilitarian Appeal	-.136**	.051		.160***	.059	H ₃ (✓)
<i>Controls</i>						
Gender (0 = female, 1 = male)	-.090	.056		.024	.065	
Age	.003	.002		.004*	.002	
Education (0 = lower, 1 = higher)	.009	.043		-.110**	.050	
Positive Engagement Valence	.003***	.001		–	–	
Negative Engagement Valence	-.004***	.001		–	–	
Login Frequency	.002	.016		.027	.018	
Social Identity	.122***	.014		.183***	.015	
<i>Moderators</i>						
Entertainment Value	.311***	.041		.332***	.046	
Content Consumption Asymmetry	-.012	.033		.059	.038	
Membership Duration	.004	.035		-.199***	.041	
<i>Interactions</i>						
Normative Appeal × Entertainment Value	.074	.054		-.218***	.063	H ₄ (✓)
Utilitarian Appeal × Entertainment Value	.058	.052		-.132**	.060	H ₅ (✓)
Normative Appeal × Content Consumption Asymmetry	.023	.048		.067	.056	H ₆ (×)
Utilitarian Appeal × Content Consumption Asymmetry	.031	.057		.153**	.066	H ₇ (✓)
Normative Appeal × Membership Duration	-.025	.053		.115*	.061	H ₈ (×)
Utilitarian Appeal × Membership Duration	-.055	.051		.142**	.059	H ₉ (✓)
R ²	.416			.257		

* = $p \leq .10$; ** = $p \leq .05$; *** = $p \leq .01$.

Notes: n = 1,311; results are based on two-tailed z-tests.

Table VI. Summary of hypotheses tests.

Hypotheses	Sign	Study 1 (Field Setting)		Study 2 (Experimental)	
		Effect	Support	Effect	Support
H ₁ : Engagement intensity has a positive effect on brand equity.	+	+	Yes	+	Yes
H ₂ : Normative appeals have a positive effect on engagement intensity.	+	+	Yes	+	Yes
H ₃ : Utilitarian appeals have a positive effect on engagement intensity.	+	+	Yes	+	Yes
H ₄ : The positive effect of normative appeals on engagement intensity is weaker when entertainment value is high.	-	n.a.	n.a.	-	Yes
H ₅ : The positive effect of utilitarian appeals on engagement intensity is weaker when entertainment value is high.	-	n.a.	n.a.	-	Yes
H ₆ : The positive effect of normative appeals on engagement intensity is stronger when content consumption asymmetry is high.	-	n.a.	n.a.	n.s.	No
H ₇ : The positive effect of utilitarian appeals on engagement intensity is stronger when content consumption asymmetry is high.	+	n.a.	n.a.	+	Yes
H ₈ : The positive effect of normative appeals on engagement intensity is weaker when membership duration is long.	-	n.a.	n.a.	+	No
H ₉ : The positive effect of utilitarian appeals on engagement intensity is stronger when membership duration is long.	+	n.a.	n.a.	+	Yes

Notes: n.a. indicates not applicable, n.s. indicates not significant.